

Challenger et al.

Method and system for a foreach mechanism  
in a fragment link to efficiently cache portal content

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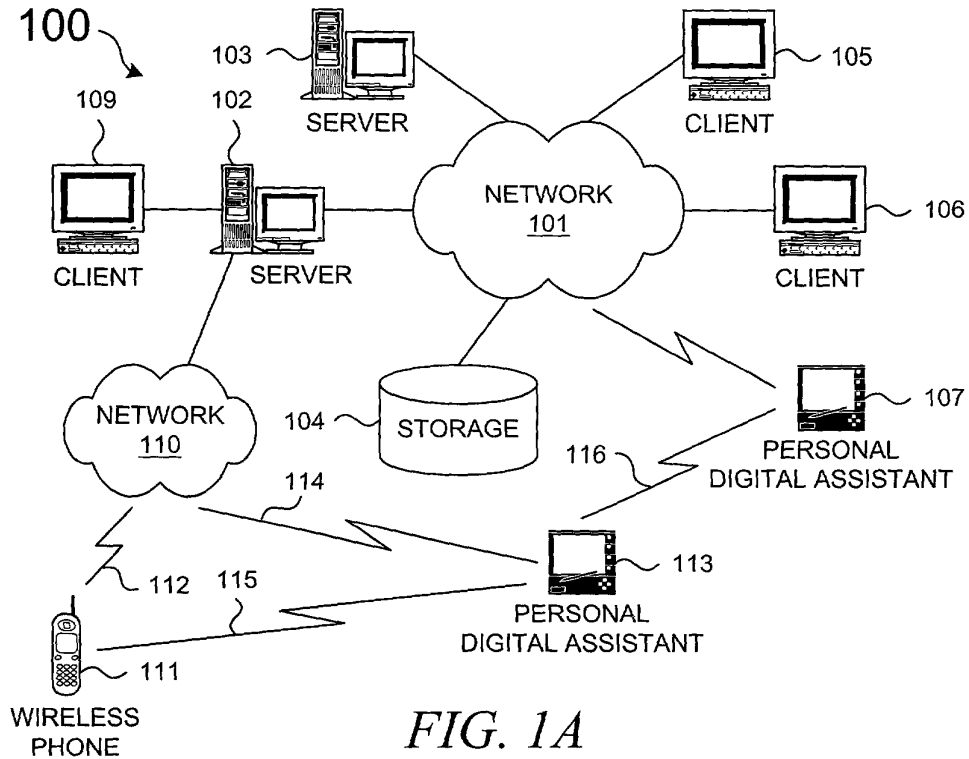


FIG. 1A  
(PRIOR ART)

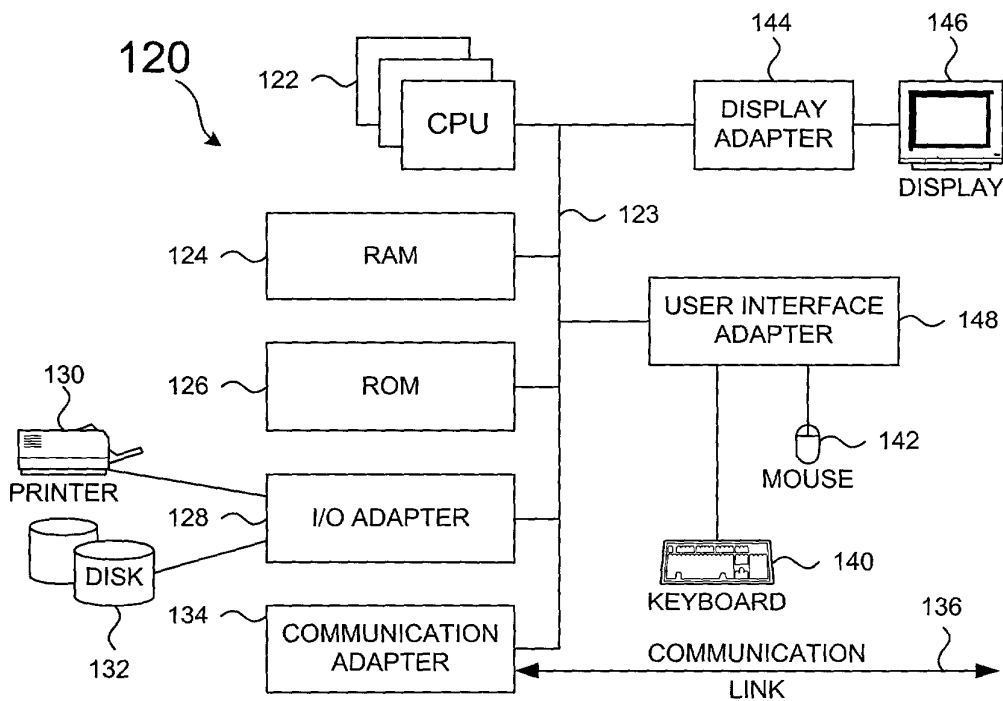
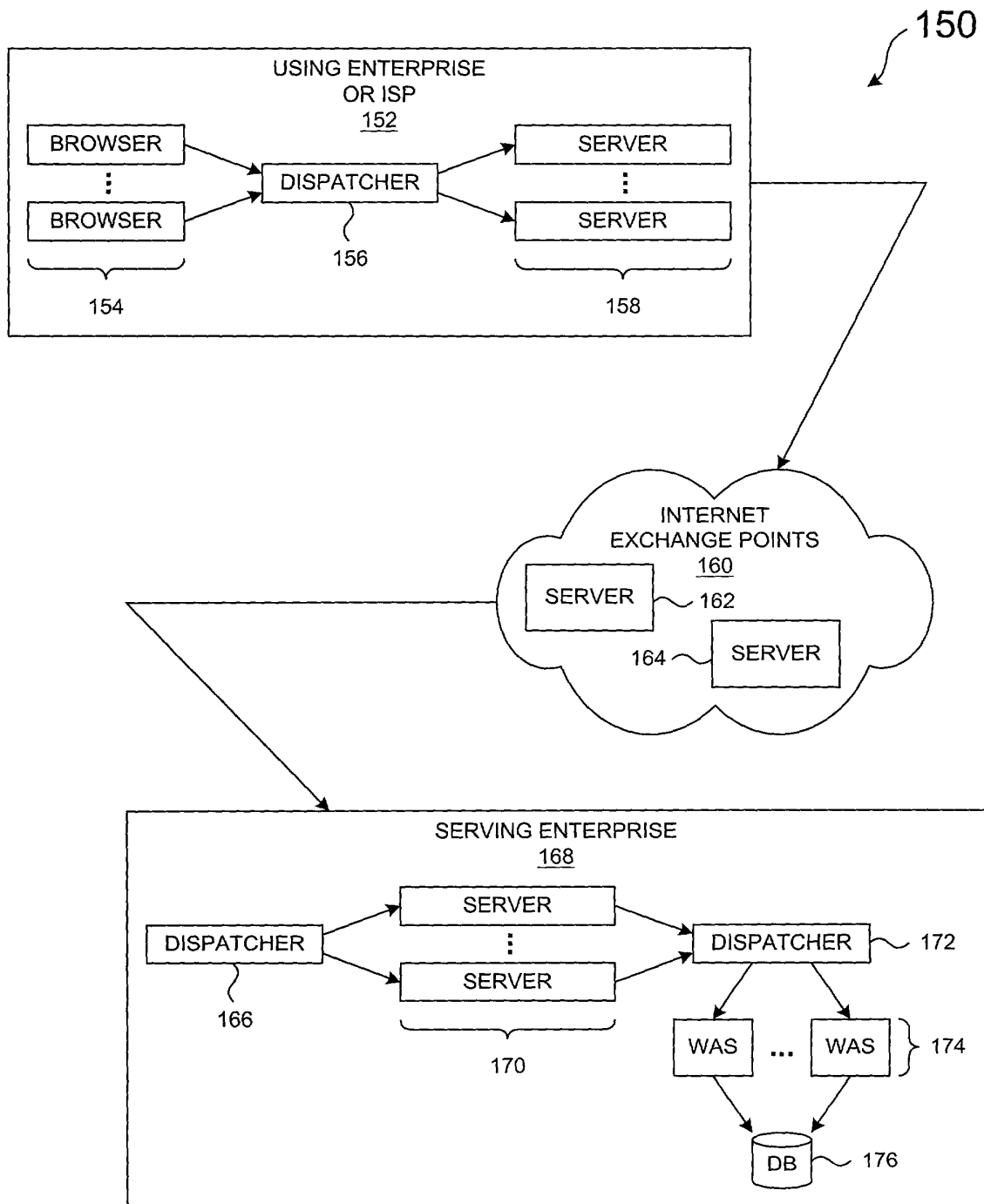


FIG. 1B  
(PRIOR ART)

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*FIG. 1C*  
(PRIOR ART)

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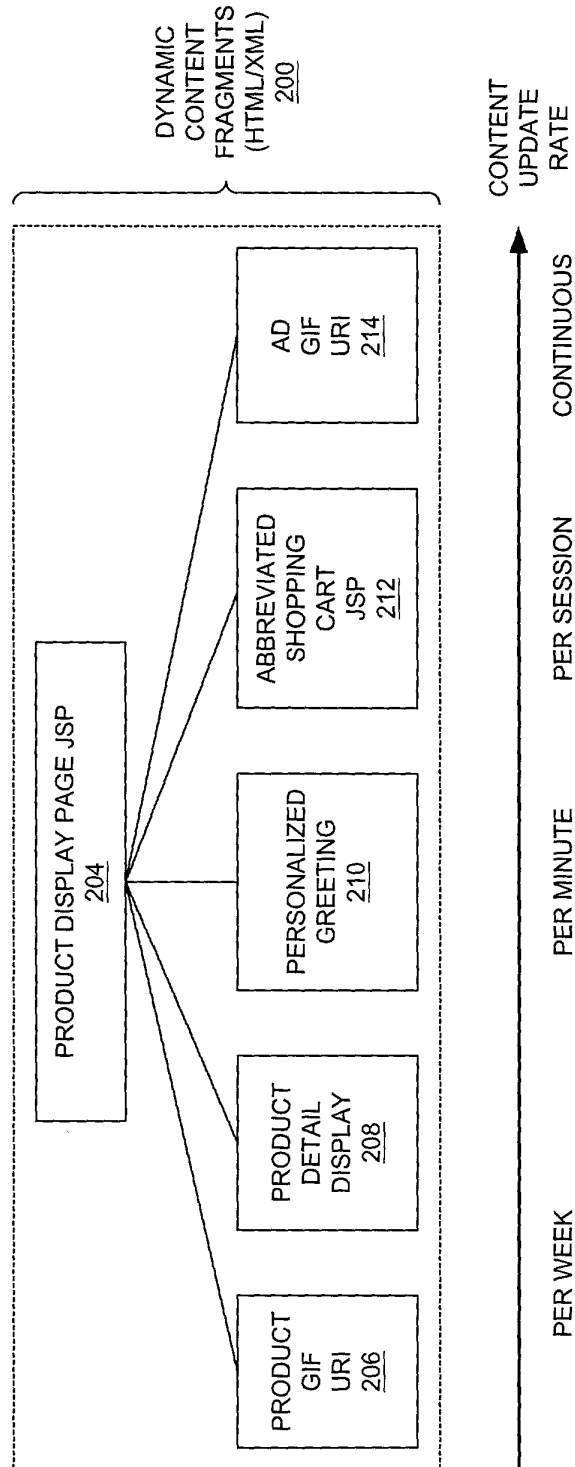


FIG. 2

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```
<!ELEMENT FRAGMENTLINK - O EMPTY -- fragment directive -->
<!ATTLIST FRAGMENTLINK
src      %URL      #REQUIRED -- primary URL of the fragment
alt      %URL      #IMPLIED  -- alternate URL of the fragment
parms    %parmlist #IMPLIED  -- query parms applied to src
foreach%string #IMPLIED  -- name of cookie used for
                                -- foreach processing
showlink no|comment|CDATA #IMPLIED
    -- whether this fragmentlink tag should be included as a
    -- comment in the assembled page
id       ID        #IMPLIED  -- unique name of this element
class    CDATA     #IMPLIED  -- class name of this element
>

<!ENTITY % parmlist "CDATA"
    -- Space delimited list of form element names
-->
```

Start tag: **required**; End tag: **forbidden**.

### FIG. 3

```
Fragment = "Fragment" ":" 1#fragment-directive

fragment-directive = fragment-request-directive
                    | fragment-response-directive

fragment-response-directive = "contains-fragments"
                             | "dependencies" "=" quoted-list
                             | "cacheid" "=" rulelist

fragment-request-directive = "supports-fragments"

quoted-list = "<"> 1#string ">"

rulelist = "<"> 1#cacherule ">"

cacherule = "(" parmrule ["," cookierule] ")" | "URL"

parmrule = 1#parmname
parmname = string | "[" string "]"

cookierule = 1#cookienam
cookienam = string | "[" string "]"
```

### FIG. 4

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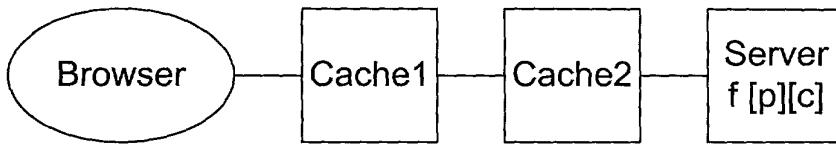


FIG. 5A

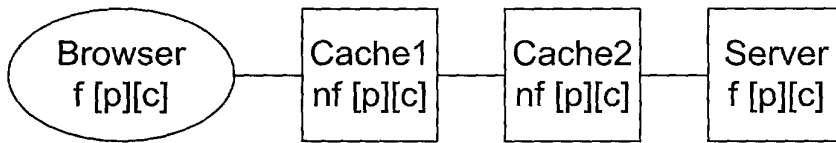


FIG. 5B

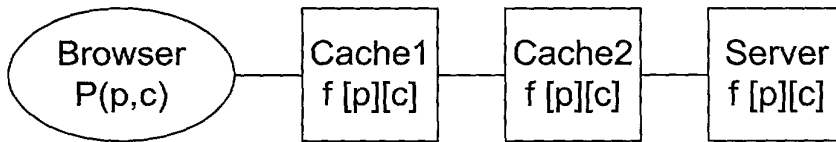


FIG. 5C

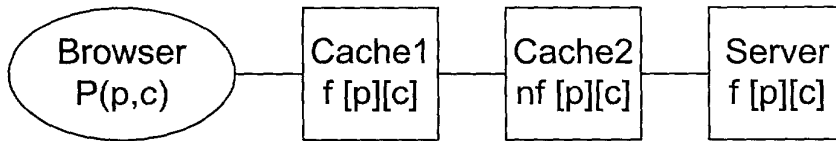


FIG. 5D

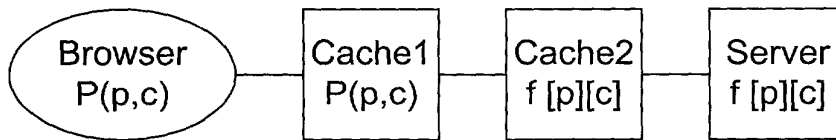


FIG. 5E

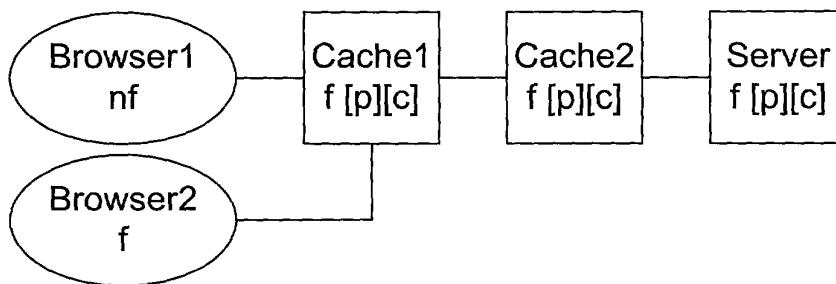


FIG. 5F

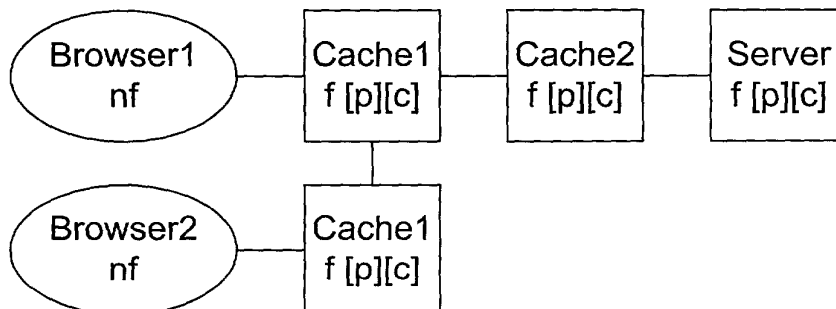


FIG. 5G

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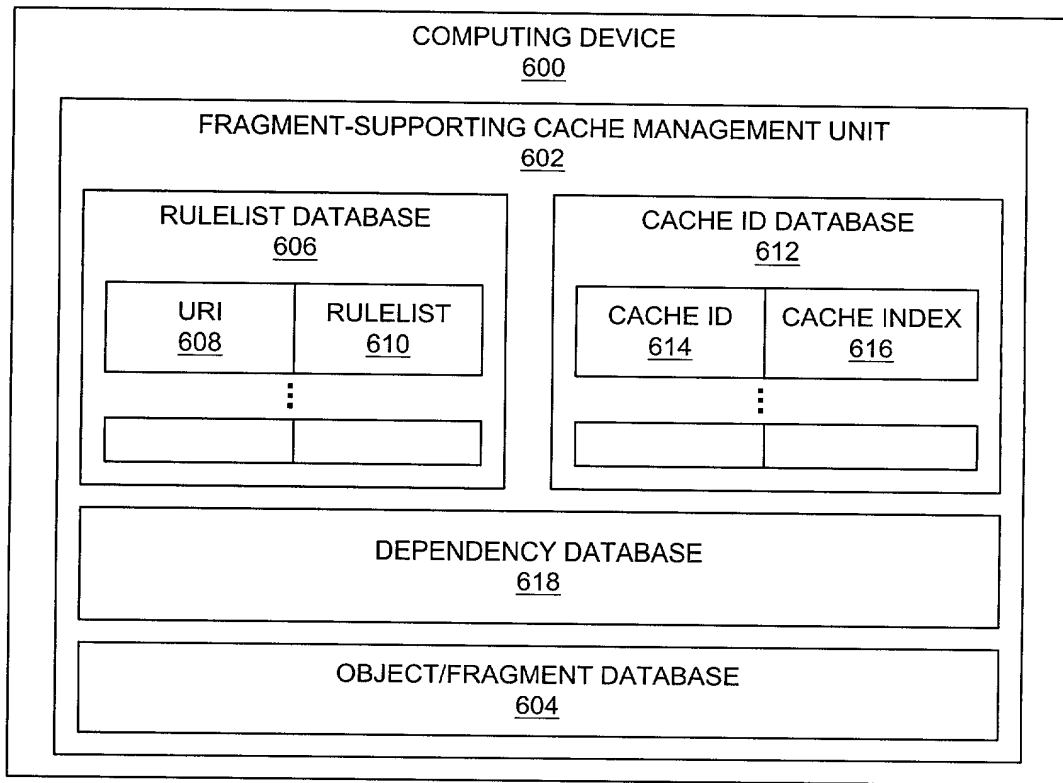


FIG. 6A

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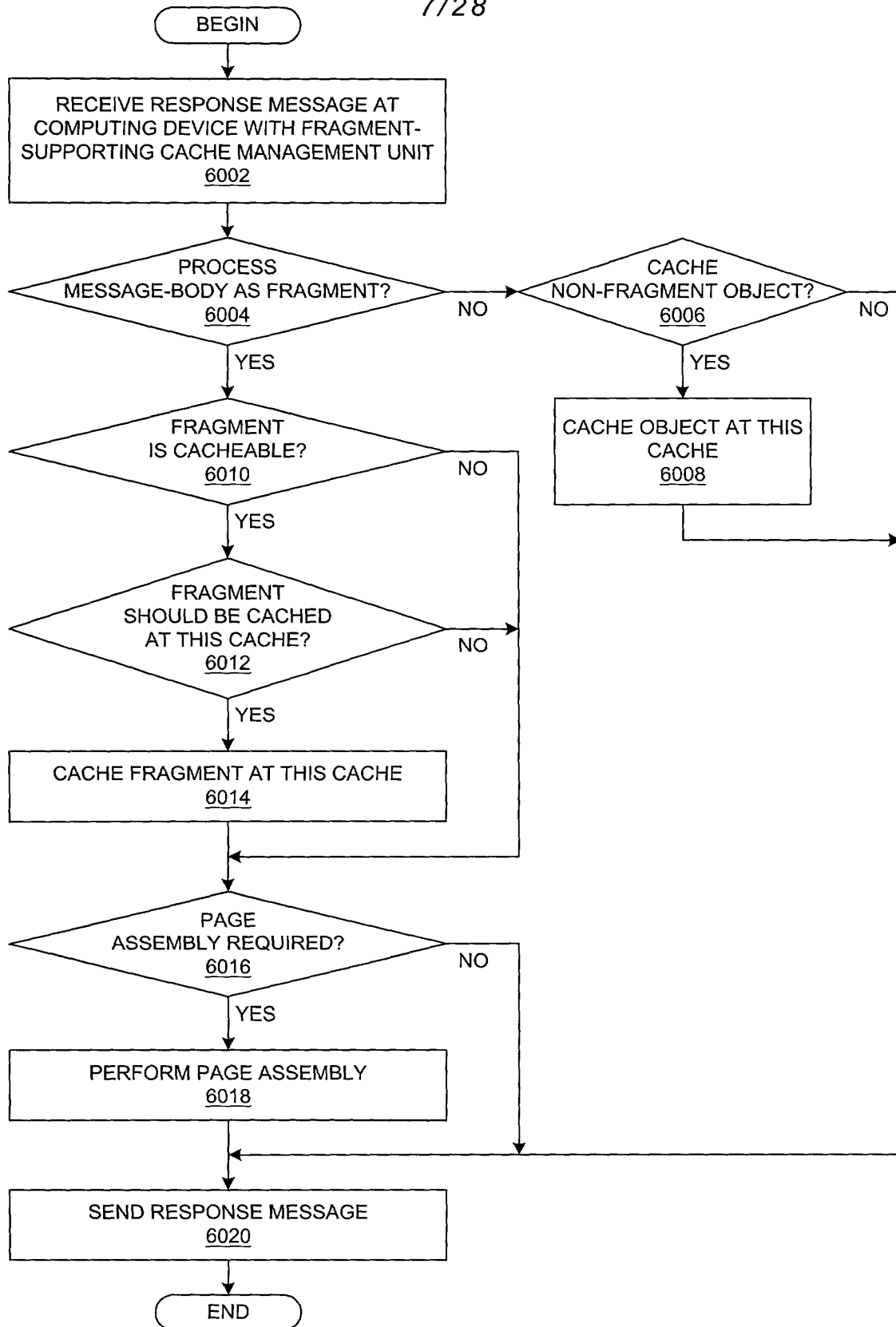
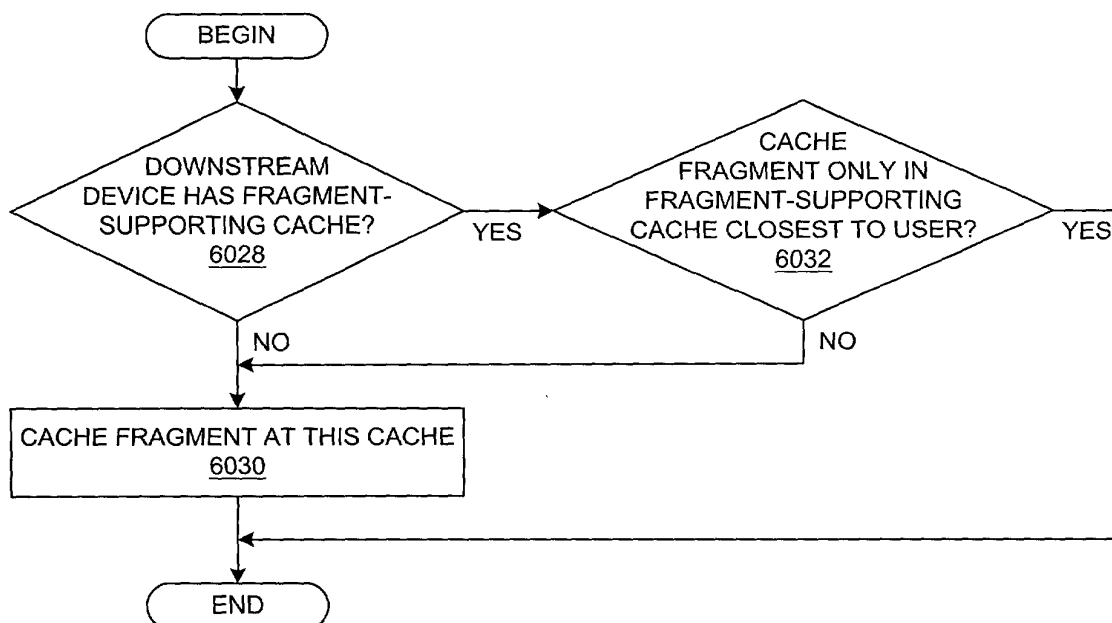
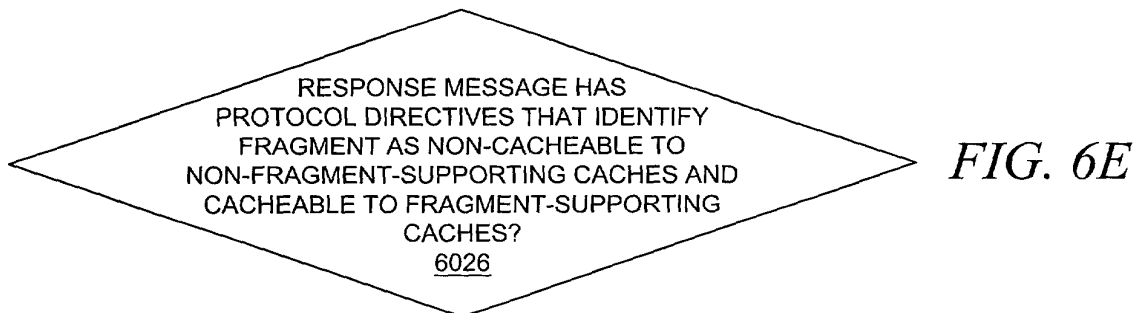
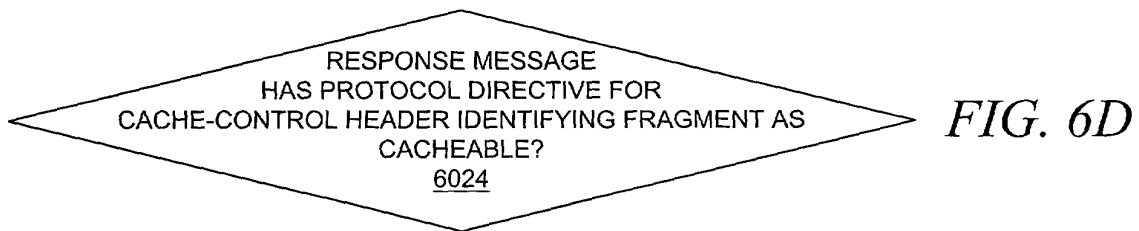
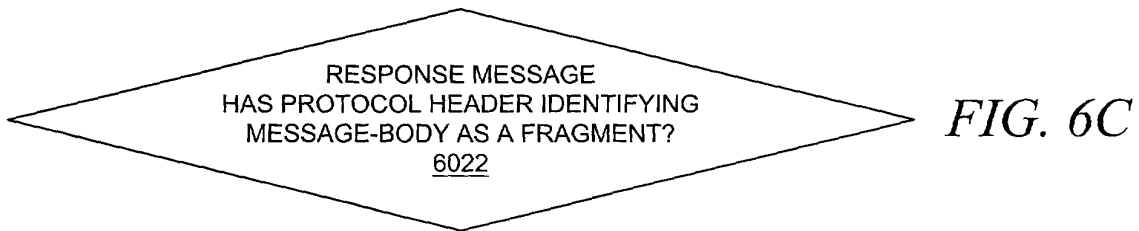


FIG. 6B

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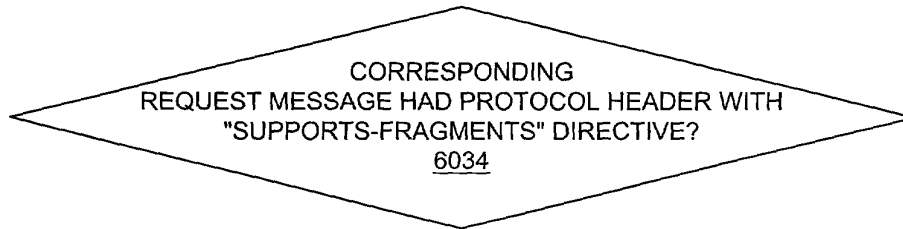


FIG. 6G

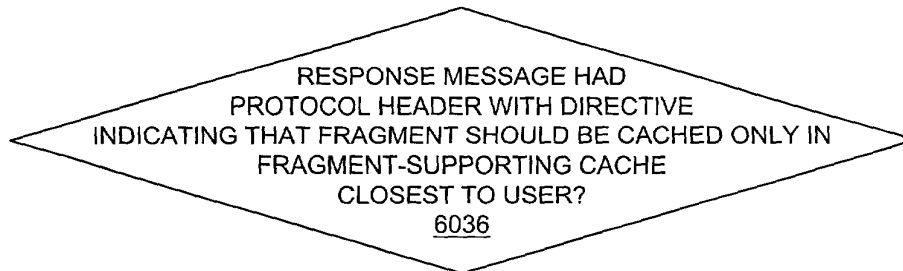


FIG. 6H



FIG. 6I

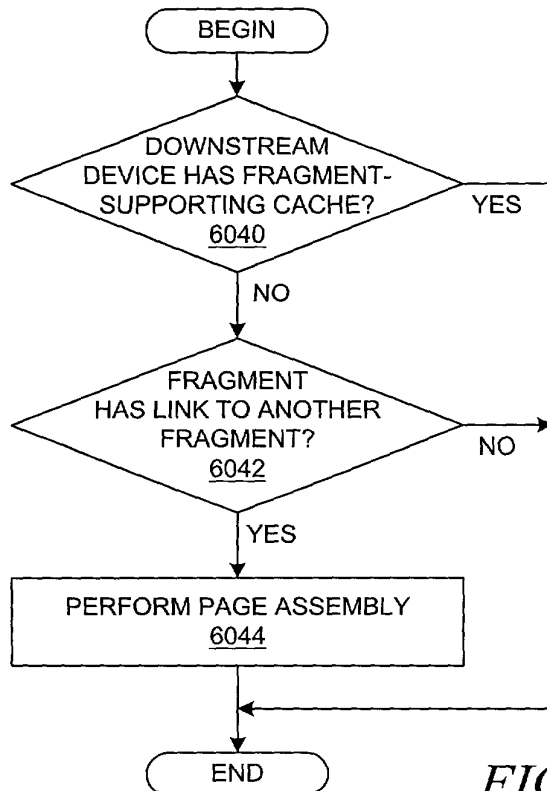


FIG. 6J

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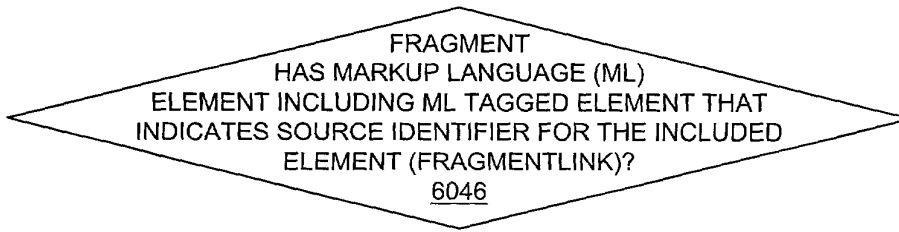


FIG. 6K



FIG. 6L



FIG. 6O

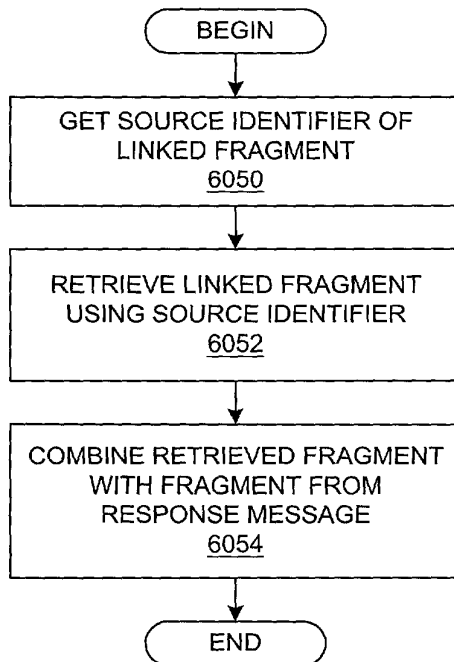


FIG. 6M

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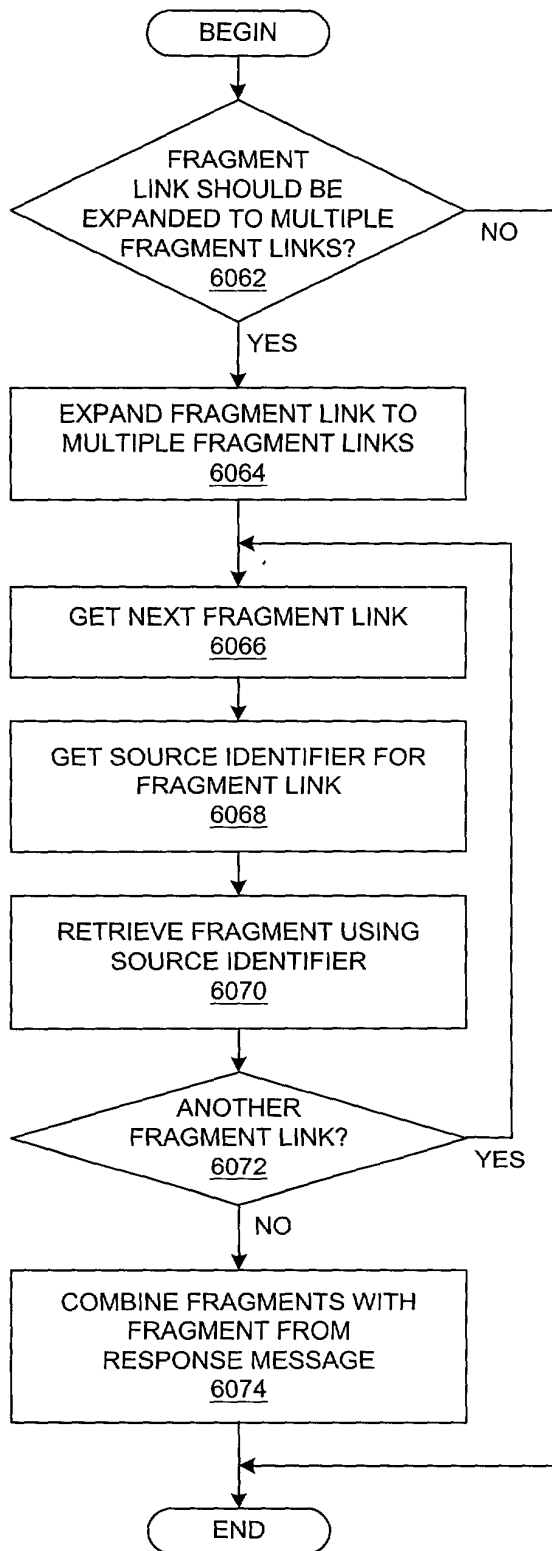


FIG. 6N

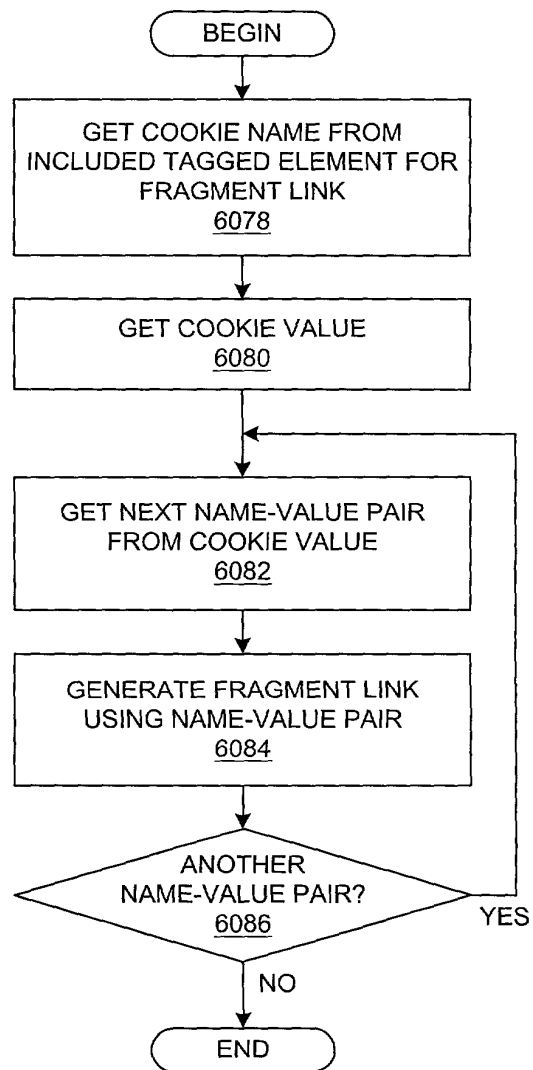


FIG. 6P

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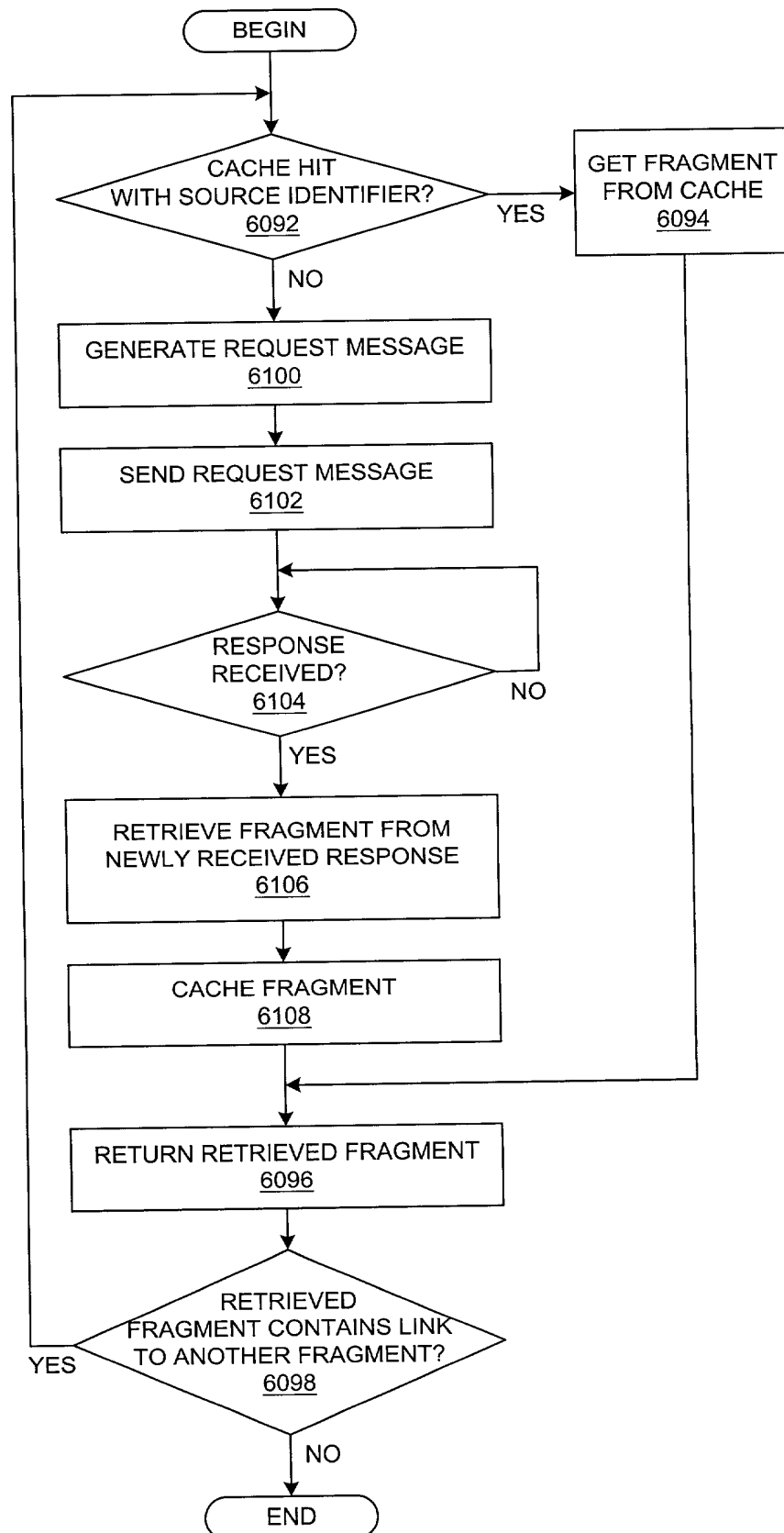


FIG. 6Q

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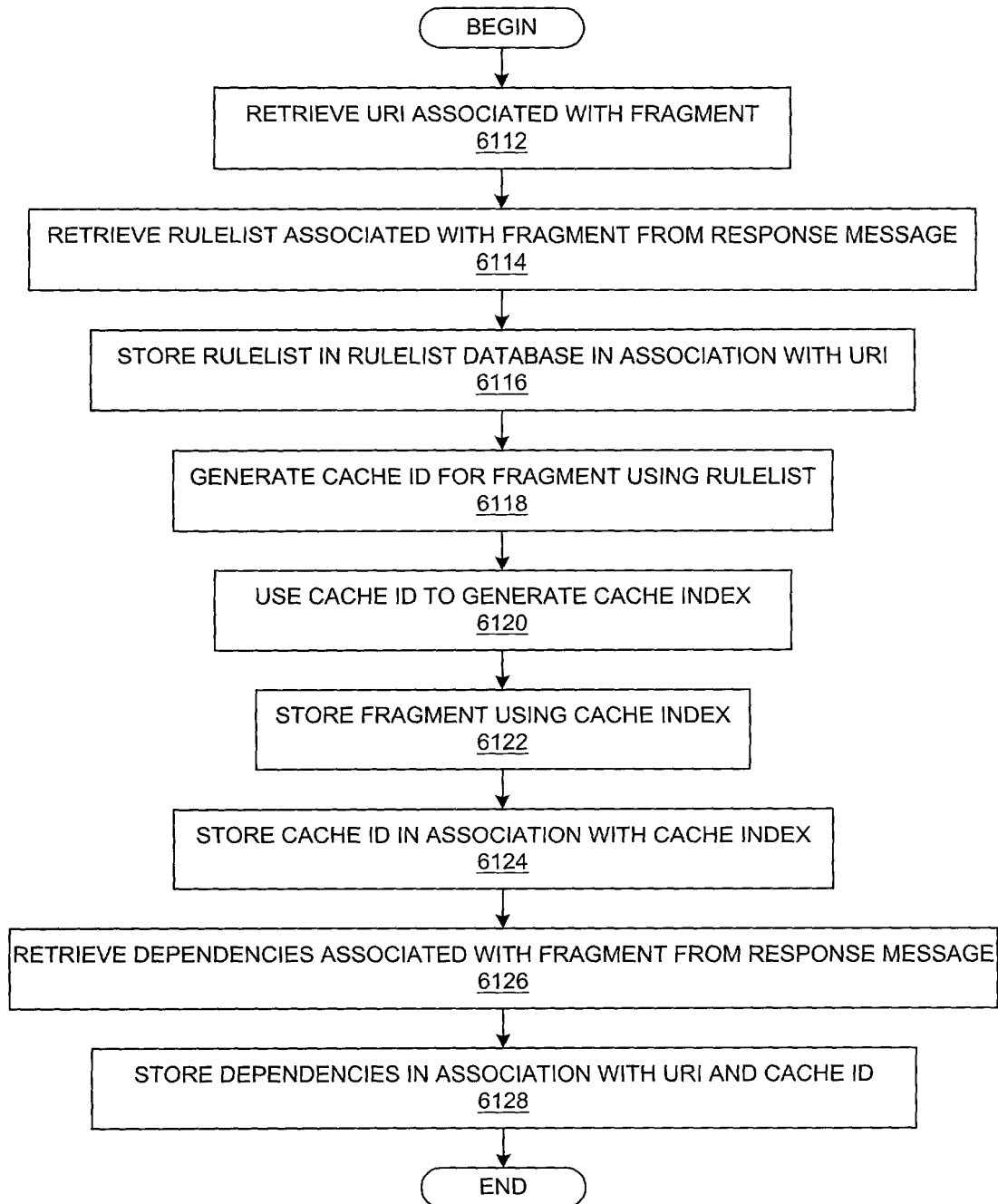


FIG. 6R

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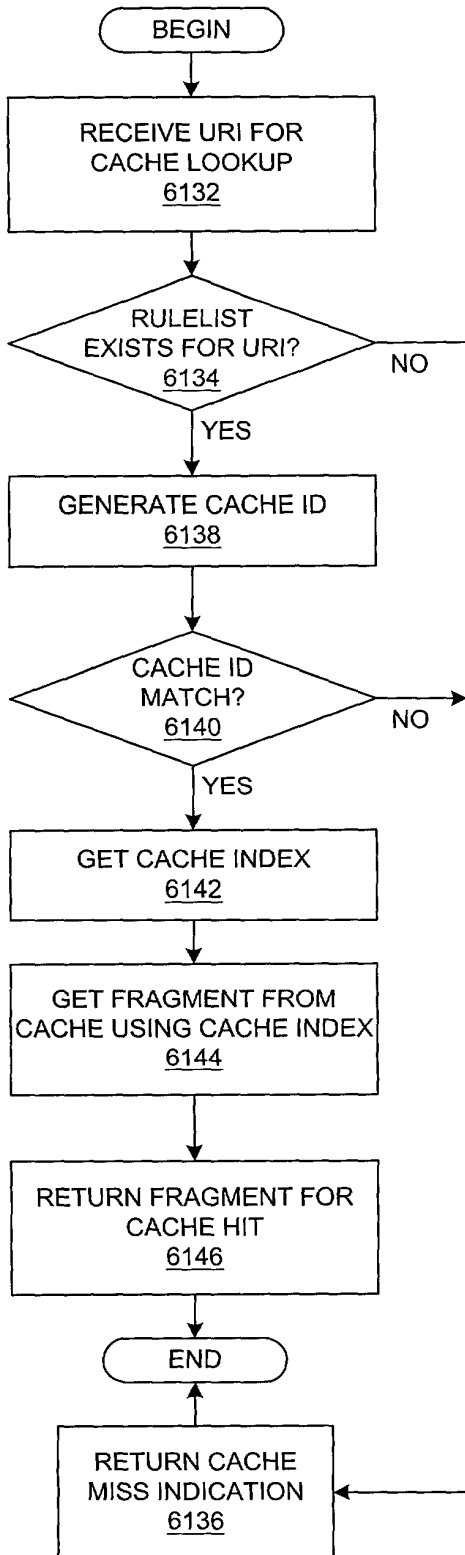


FIG. 6S

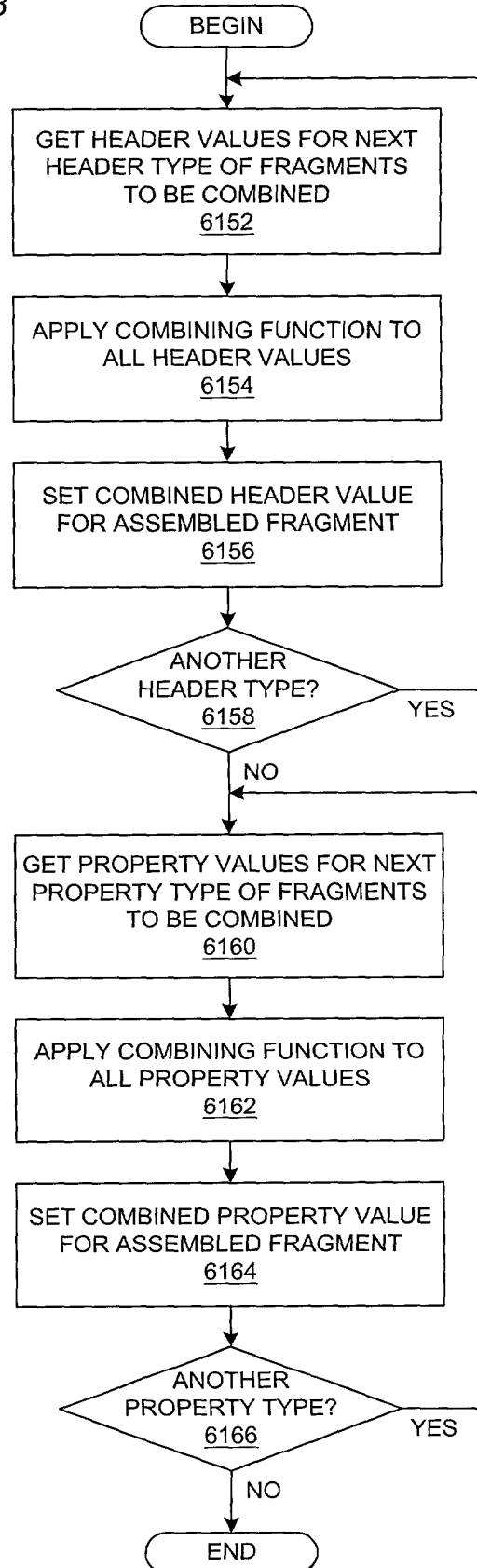


FIG. 6T

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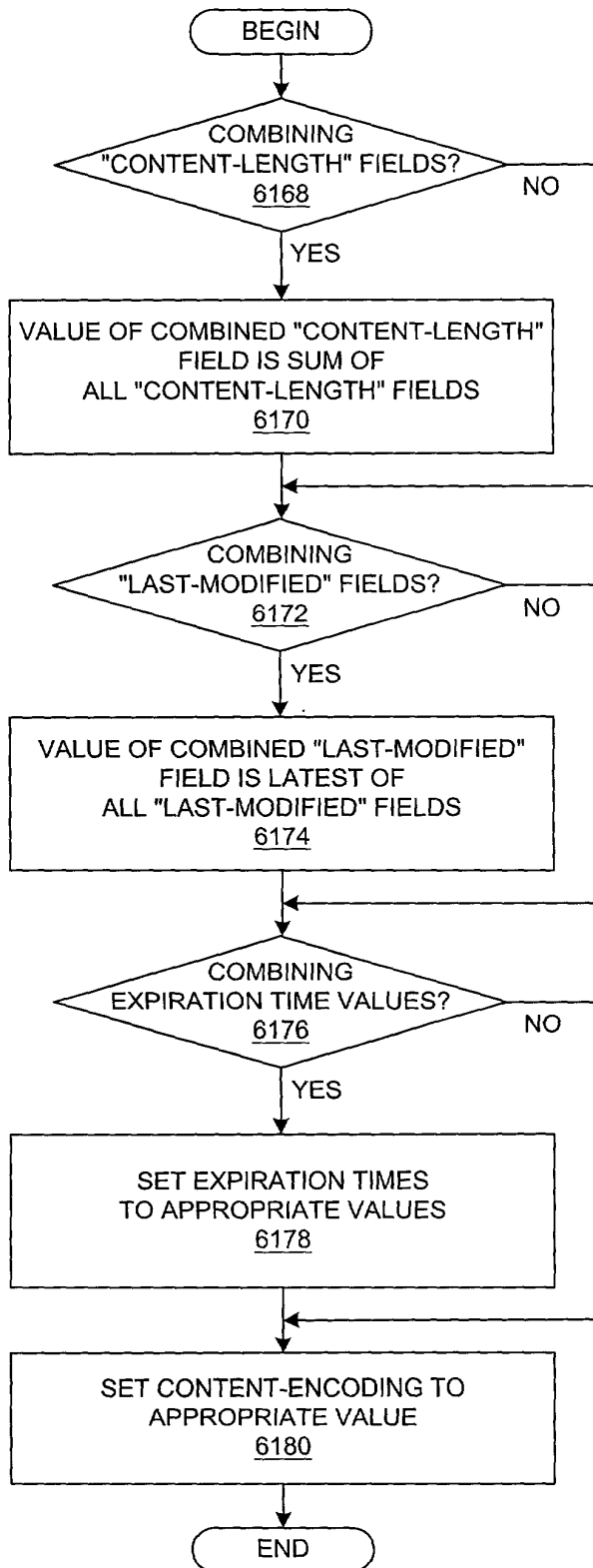


FIG. 6U

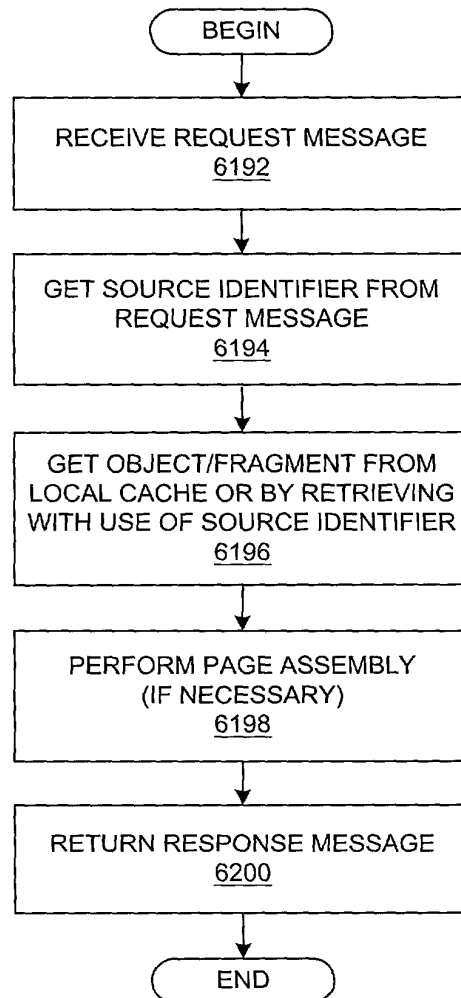


FIG. 6V

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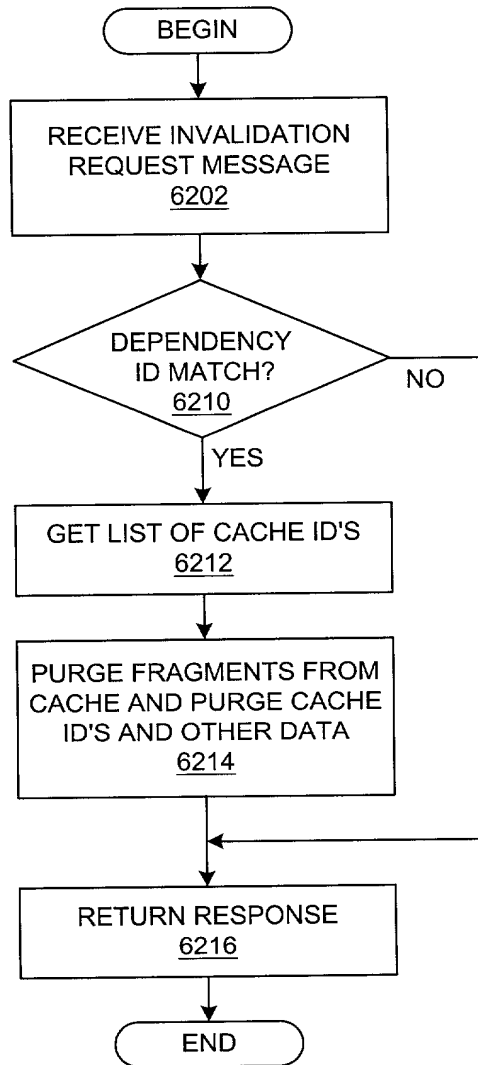
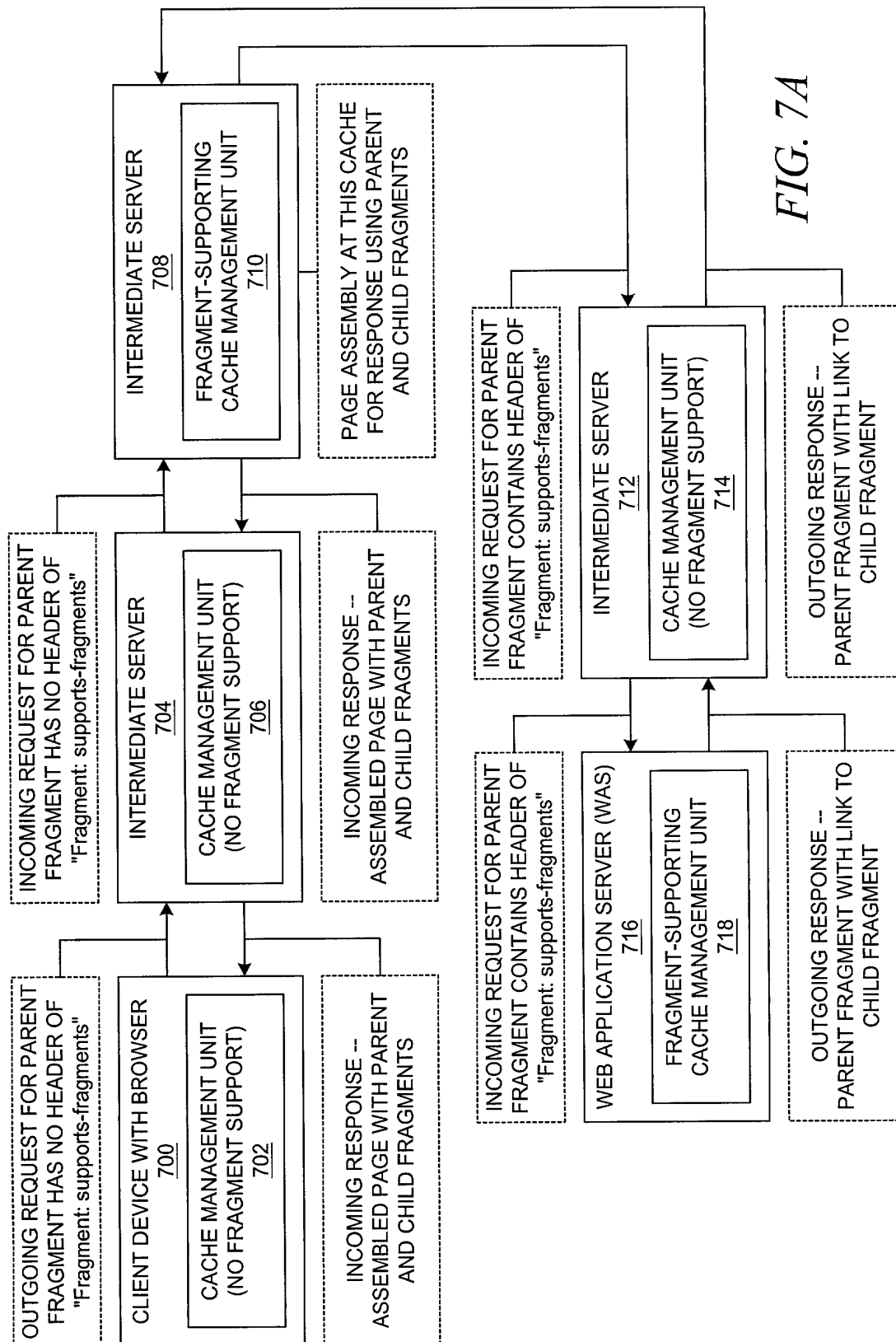


FIG. 6W



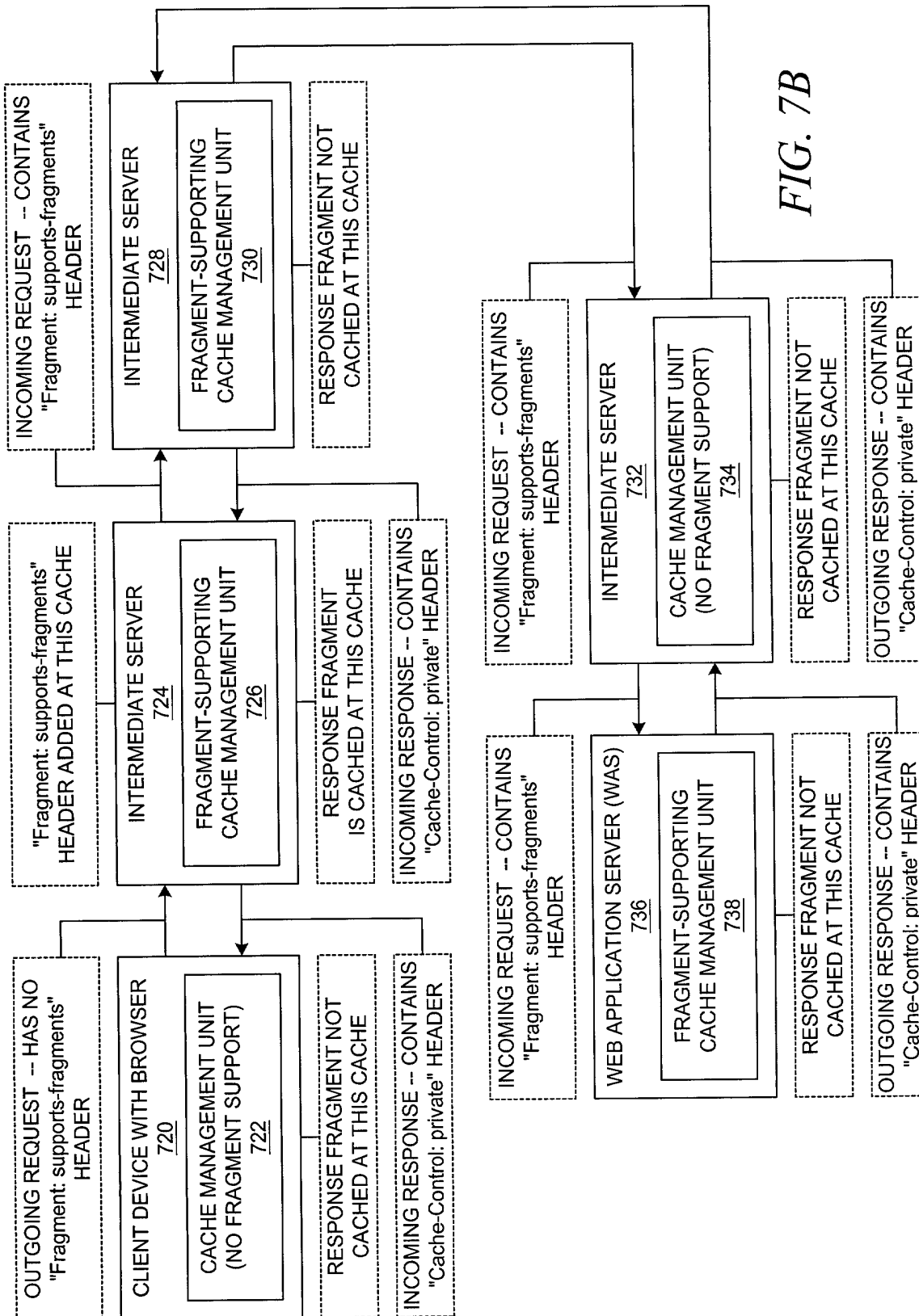
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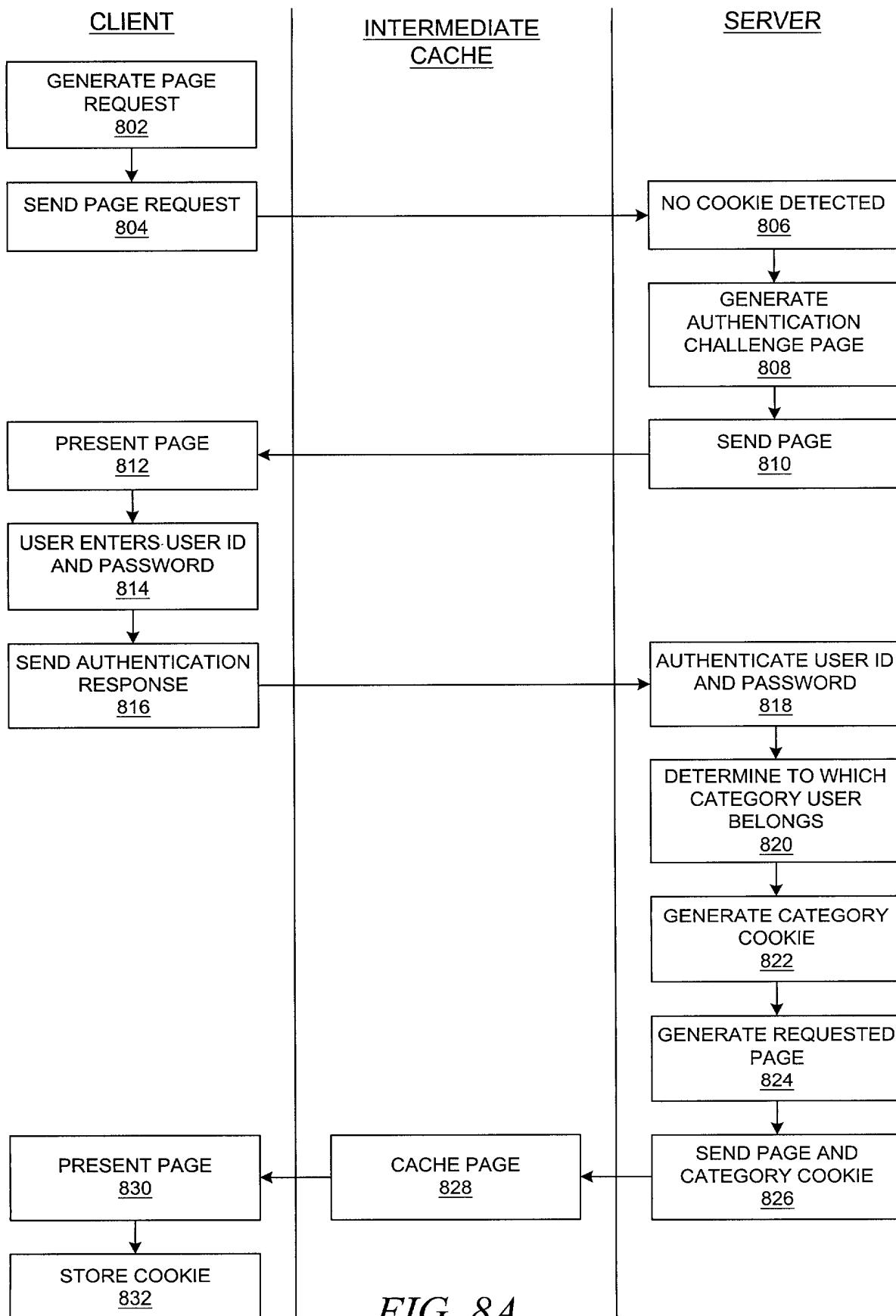


FIG. 8A

Method and system for a foreach mechanism  
in a fragment link to efficiently cache portal content

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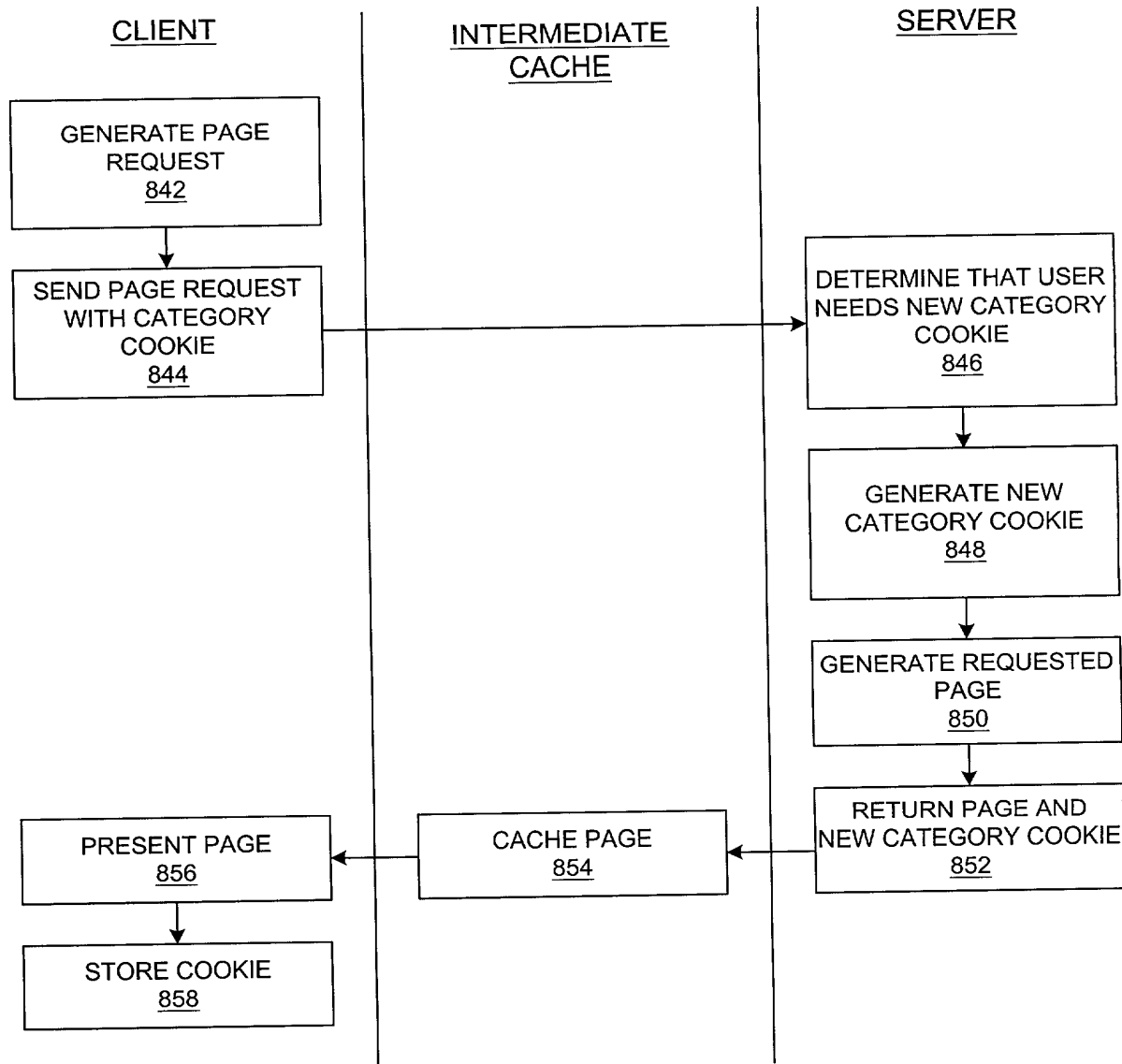


FIG. 8B

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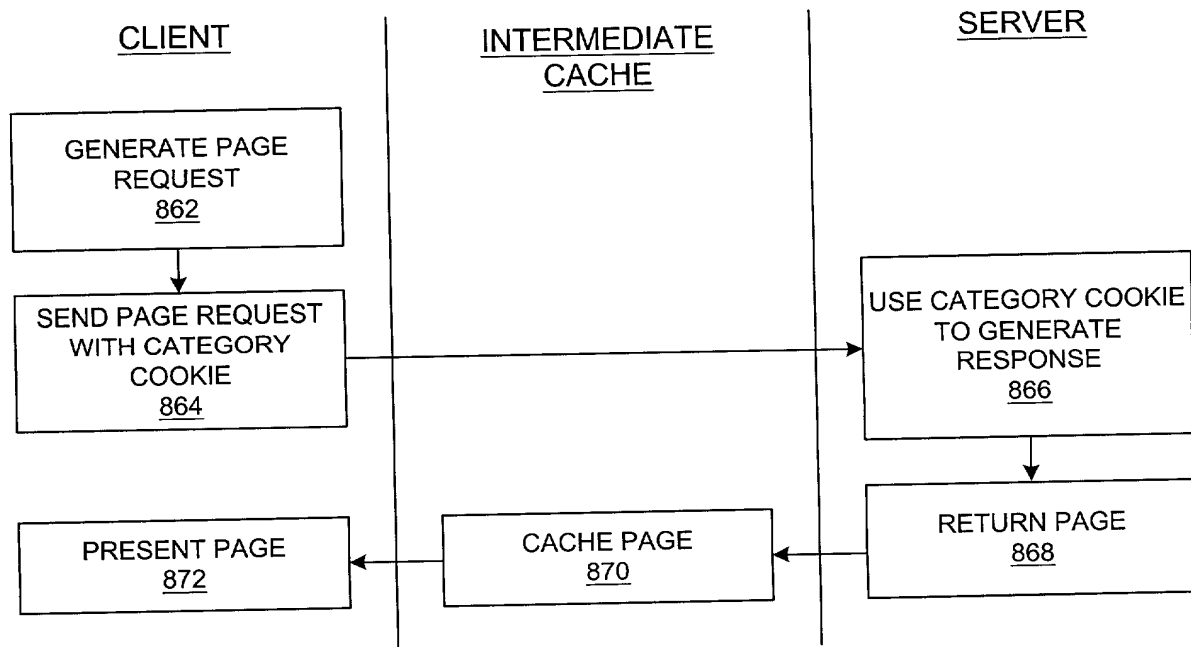


FIG. 8C

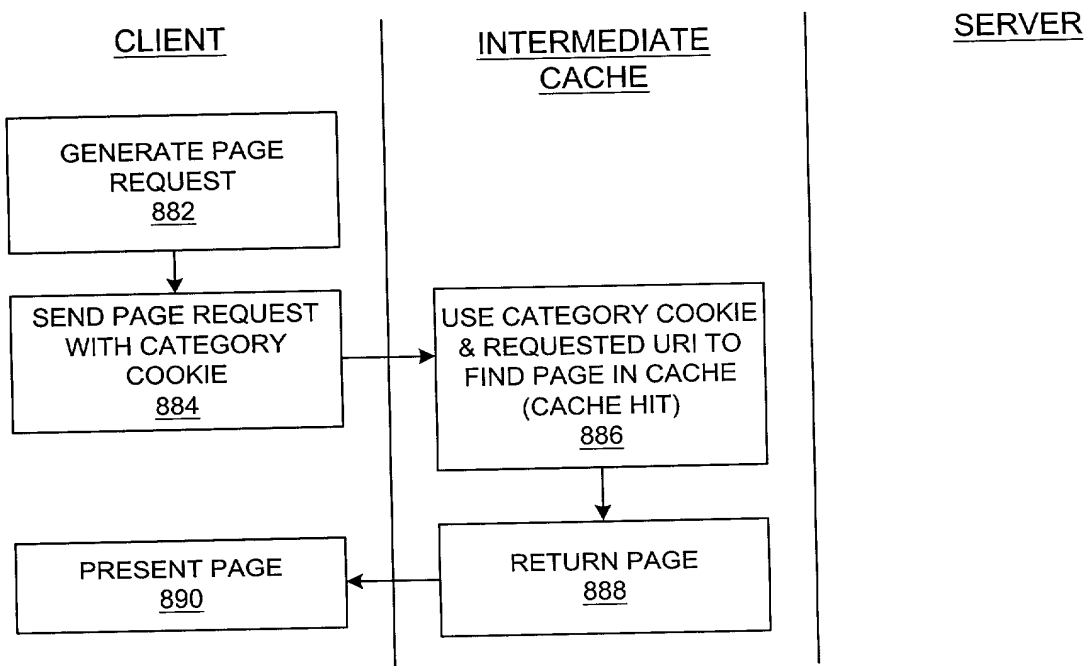


FIG. 8D

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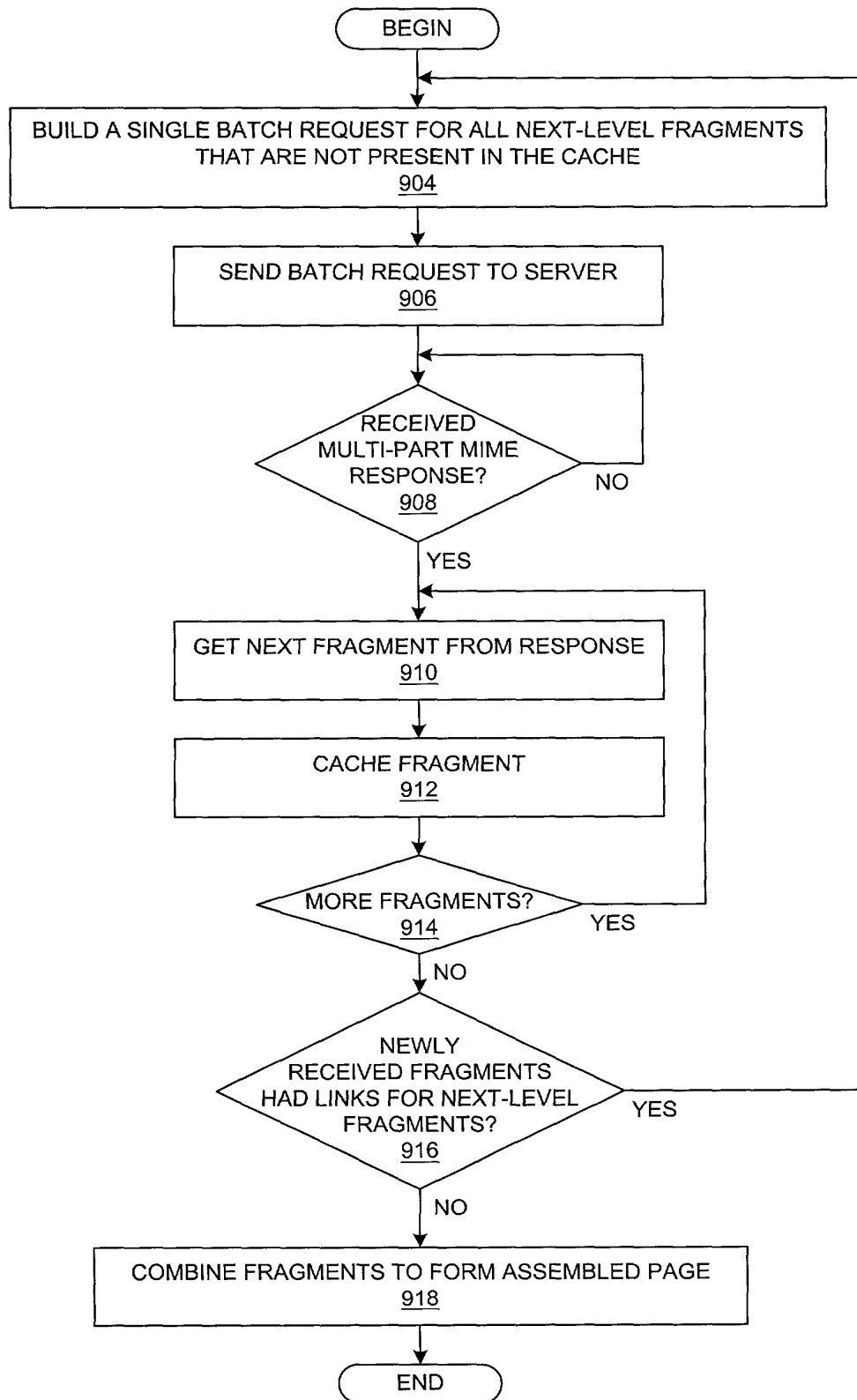


FIG. 9A

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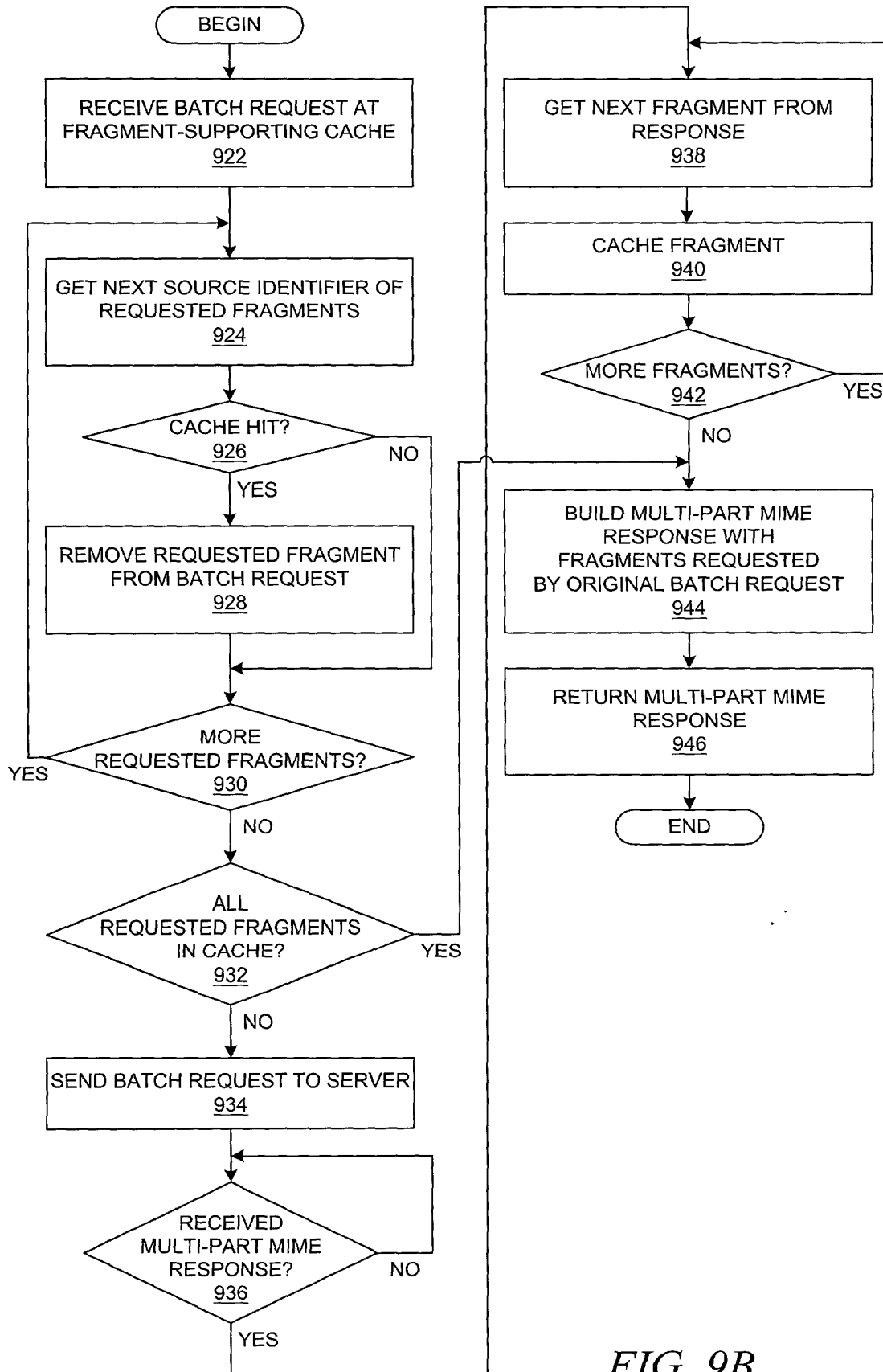


FIG. 9B

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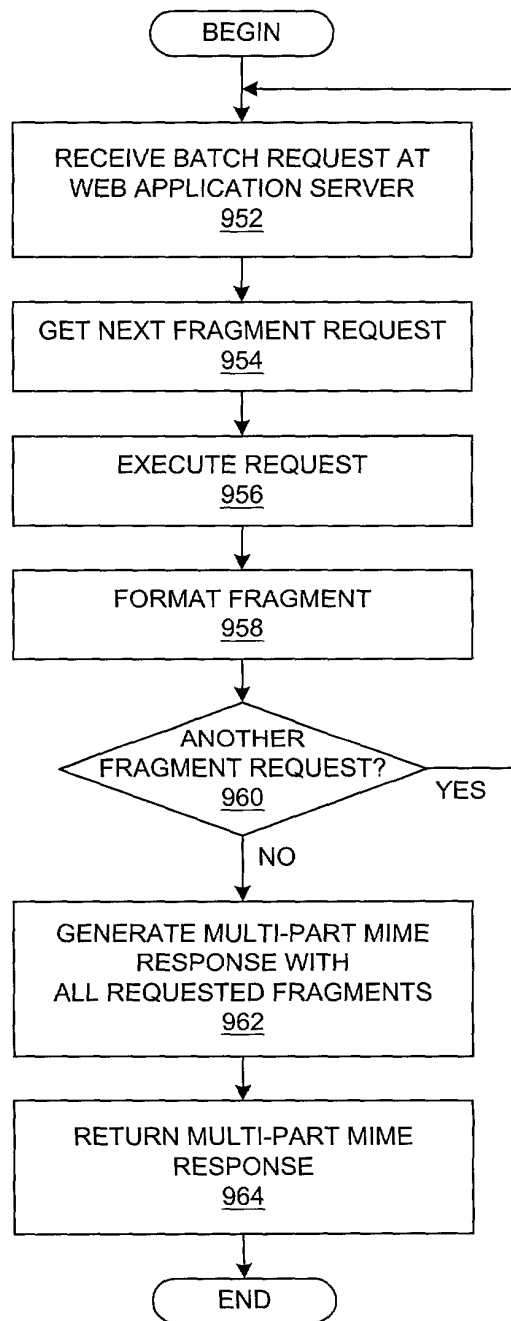


FIG. 9C



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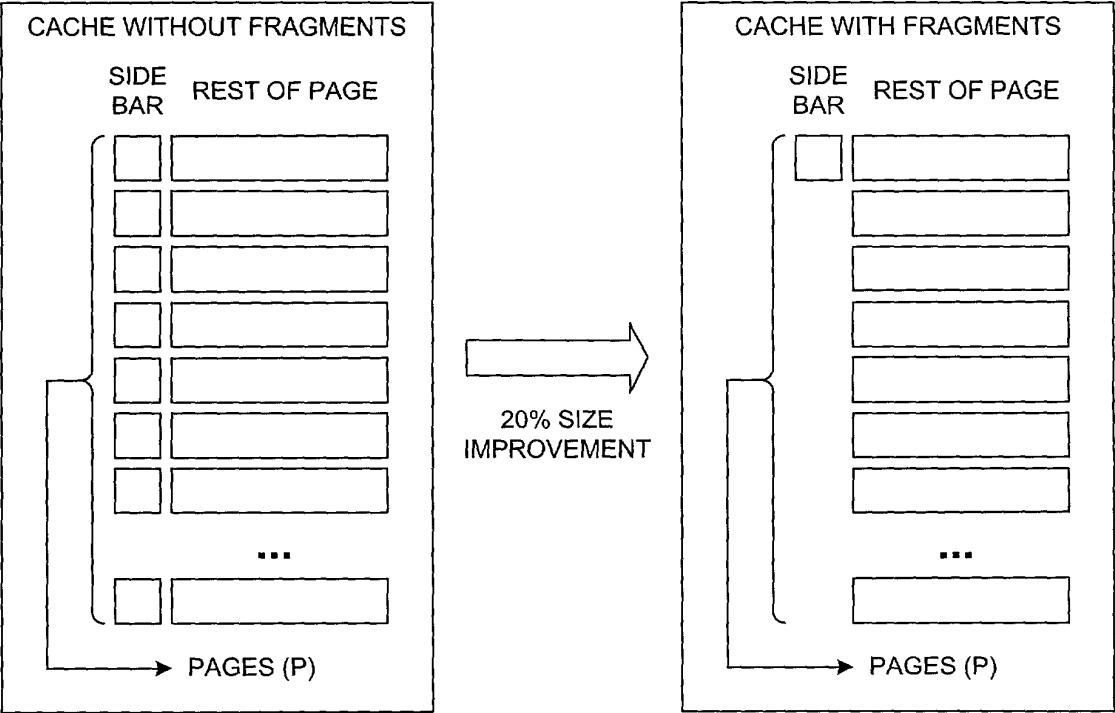


FIG. 10A

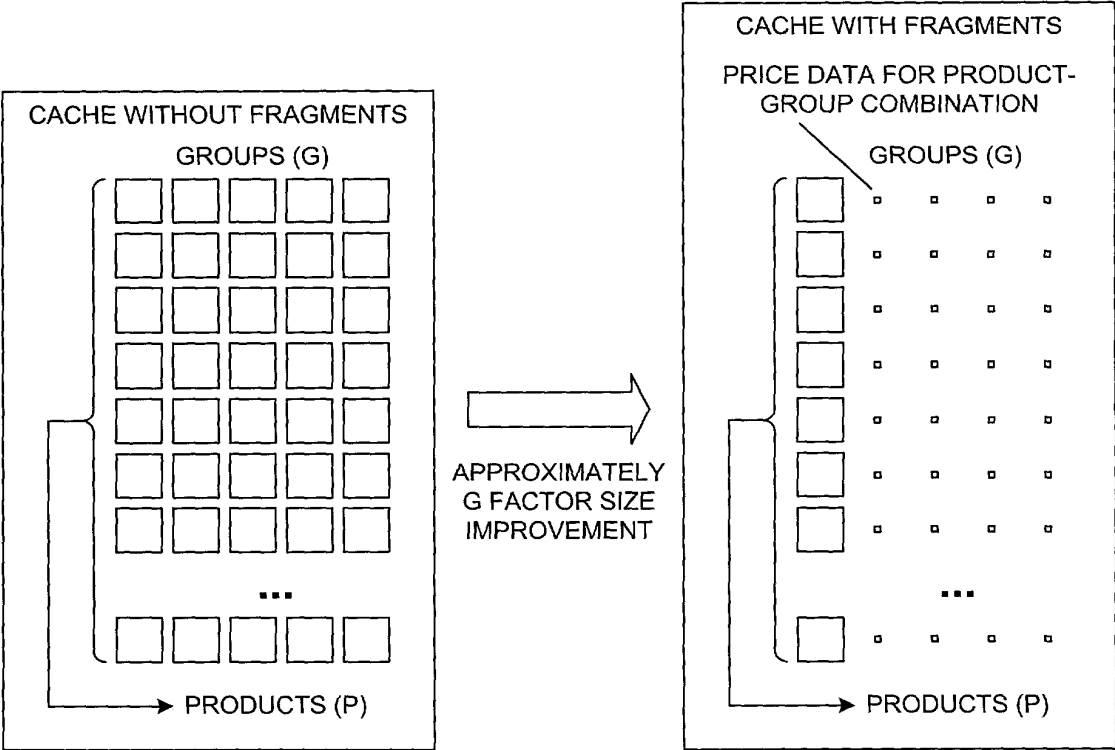


FIG. 10B

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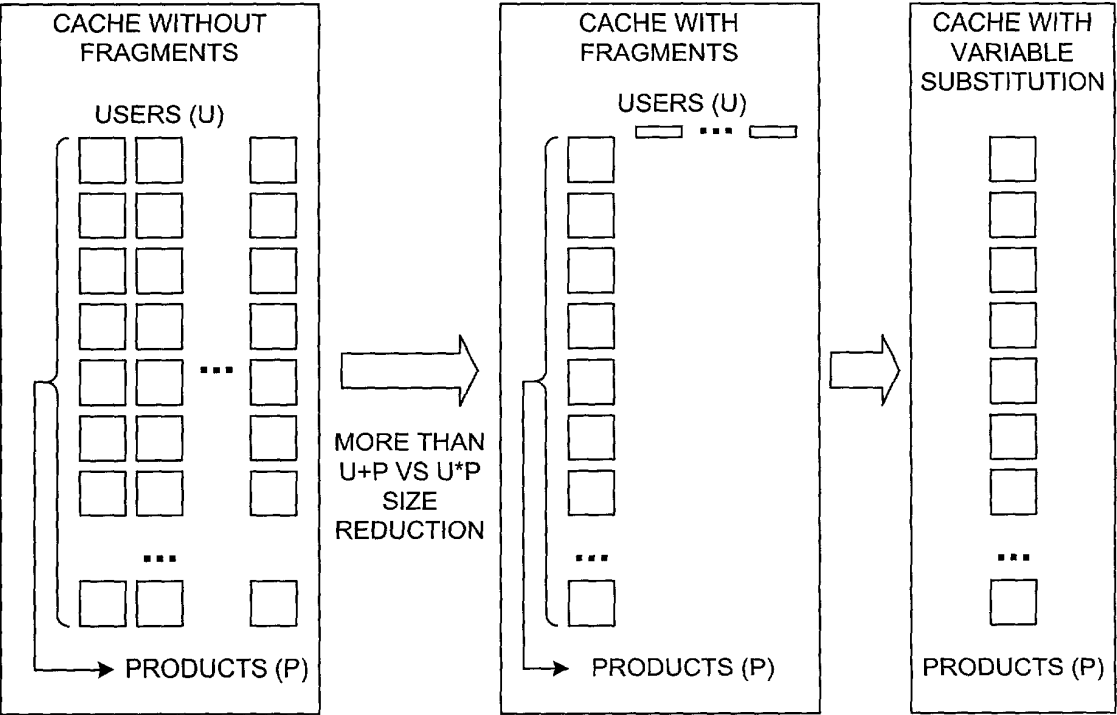


FIG. 10C

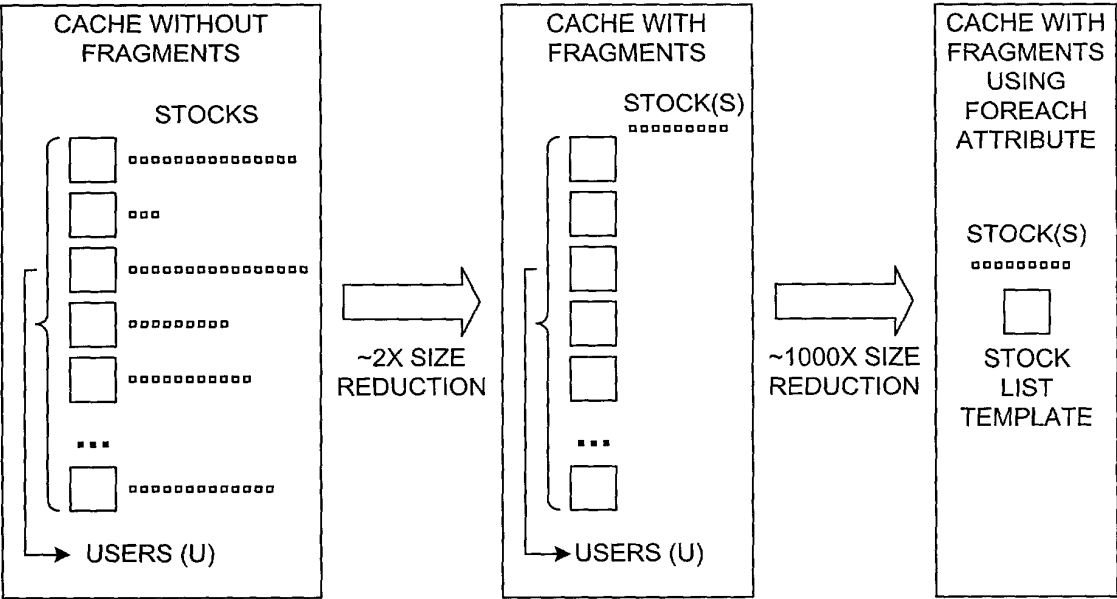
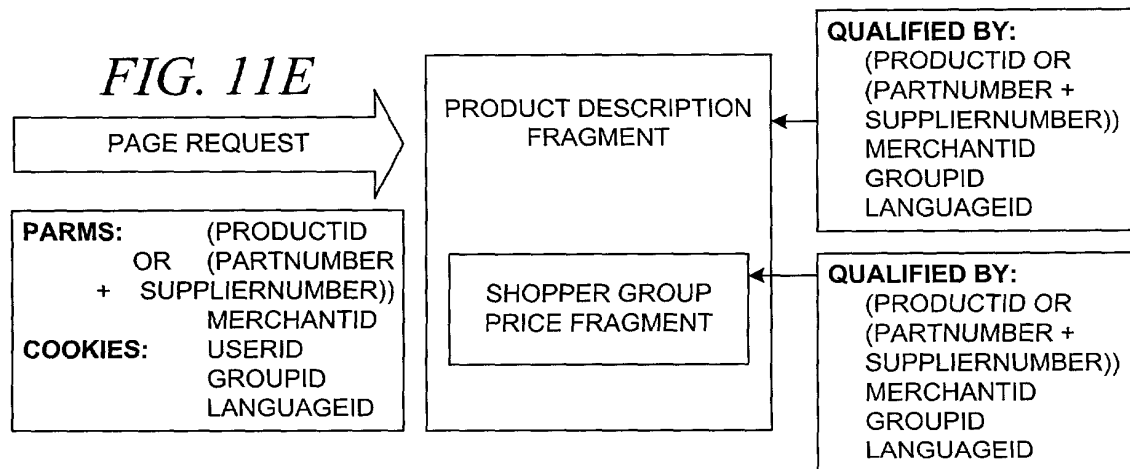
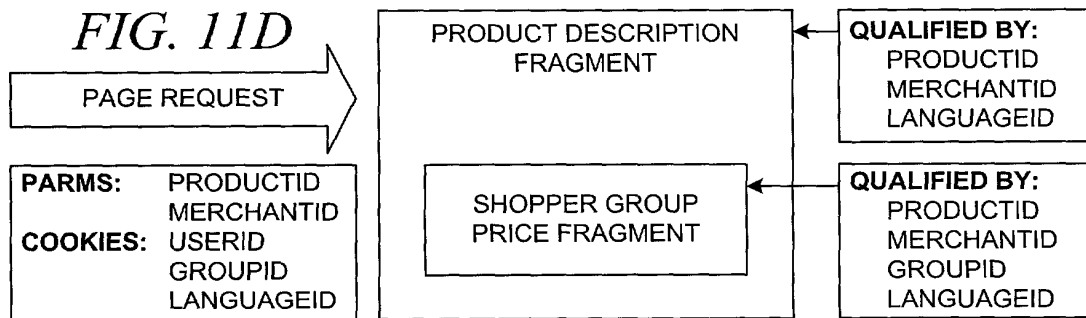
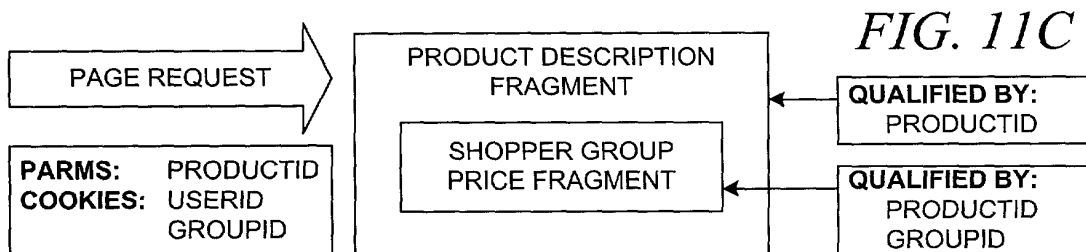
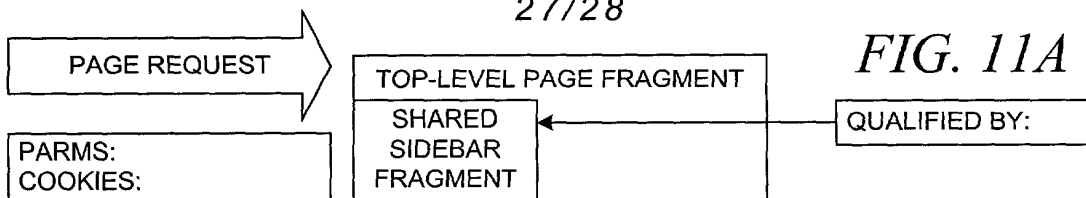


FIG. 10D

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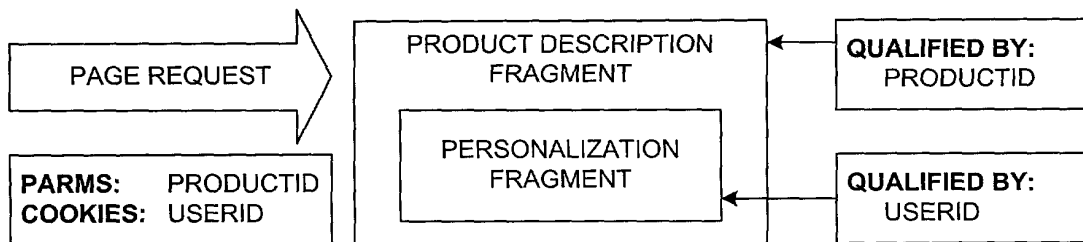


FIG. 11F

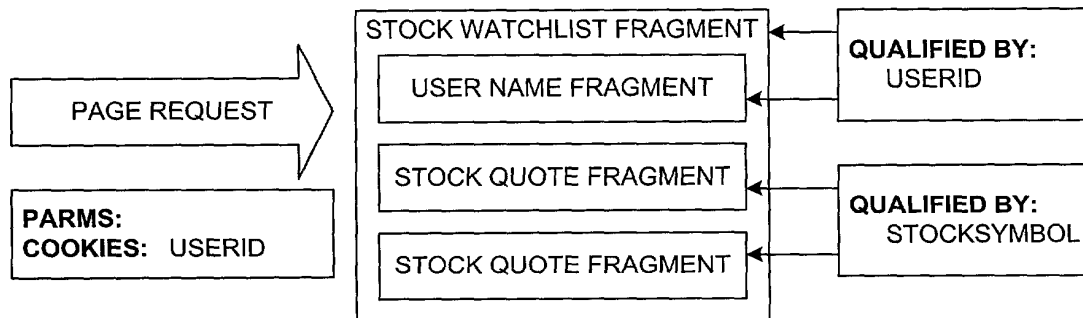


FIG. 11G

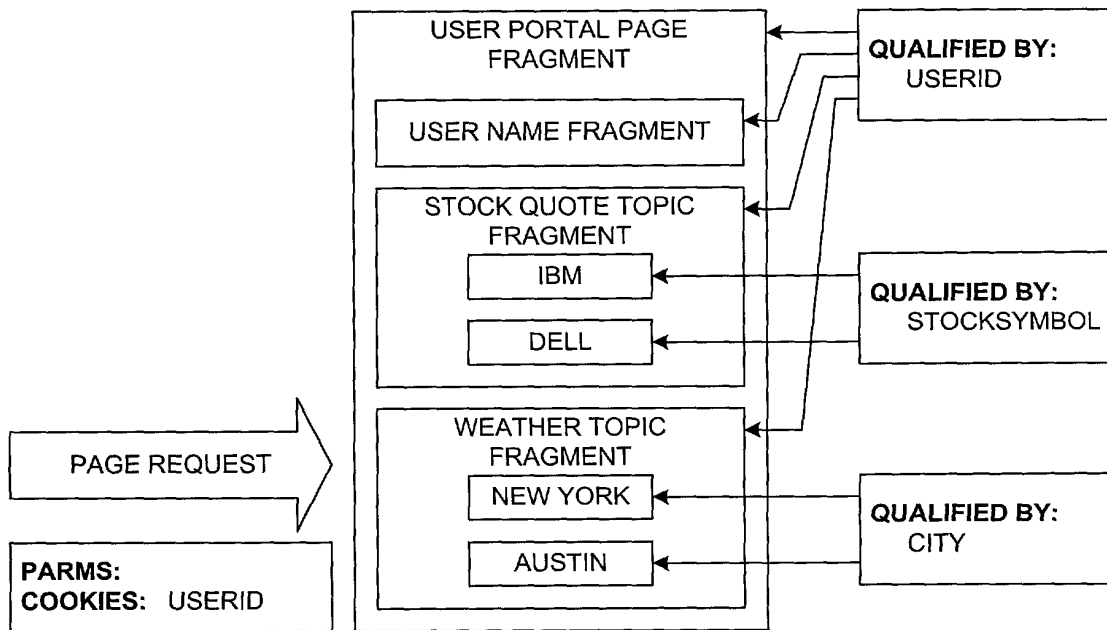


FIG. 11H